

ABSTRACT

A chitosan enhanced dewatering bag capable of removing increased amounts of silt, sedimentation and suspended solids from incoming water is disclosed. A first permeable membrane having a first opening comprising an inlet spout, an interior space and a plurality of fine openings communicating the interior space with the exterior of said permeable membrane defines the dewatering bag. A fabric sock containing one or more bars of chitosan gel is connected to an inner surface of said bag or inlet spout for maximized exposure to incoming fluid. A second permeable membrane is connected to said first permeable membrane and defines at least a portion of said bag. This second permeable membrane also has a plurality of fine openings communicating at least a portion of the interior space with the exterior of the second permeable membrane. A baffle wall located inside said bag and extending from one side of said bag to an opposing side separates the interior space into a first interior space and a second interior space. This baffle wall comprises one or more openings communicating the first interior space with the second interior space, such that the inlet directs fluid into the first interior space and the second permeable membrane passes fluid out of the second interior space.

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